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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,139	10/27/2003	Tong Xiao	SUN030009	3241
33438	7590	09/01/2006	EXAMINER	
HAMILTON & TERRILE, LLP			MEMULA, SURESH	
P.O. BOX 203518			ART UNIT	
AUSTIN, TX 78720			PAPER NUMBER	
			2825	

DATE MAILED: 09/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/694,139	Applicant(s) XIAO ET AL.	
	Examiner Suresh Memula	Art Unit 2825	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/13/04; 3/01/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. In Claim 4, after --information-- at line 2 insert --of-- for proper grammar.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1-30 are rejected under 35 U.S.C. 102(e)** as being anticipated by Moon et al. (US Pub. No. 2003/0121013).

4. As to Claim 1, and similarly recited Claims 11 and 21,
creating a unique clock waveform (Paragraphs 0008, 0041);
defining a clock domain for the clock waveform (Paragraphs 0036; FIG. 2B);
injecting the clock domain (Paragraphs 0036; FIG. 2B) into a control node
(Paragraphs 0036; FIG. 1-2, 5-6, 9-10, 13-14, 18, 19, 21);
propagating the clock waveform (Paragraphs 0035-0036) from the control node
to a transitively adjacent observation node (Paragraphs 0035-0036; FIG. 1-2, 5-6, 9-10,
13-14, 18, 19, 21); and

retrieving transitively adjacent control node information to determine path delay information (Paragraphs 0004, 0007, 0036, 0039, 0041) from the control node to the transitively adjacent observation node based upon propagation of clock waveform (Paragraphs 0035-0036; FIG. 1-2, 5-6, 9-10, 13-14, 18, 19, 21).

5. As to Claim 2, and similarly recited Claims 12 and 22, the clock domain includes a rising edge clock domain and a falling edge clock domain (Paragraph 0036; FIG. 2B); and, the path delay information includes information relating to the rising edge clock domain and the falling edge clock domain (Paragraph 0036; FIG. 2B).

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6. As to Claim 3, and similarly recited Claims 13 and 23, the transitively adjacent observation node becomes a pseudo control node (FIG. 14).

7. As to Claim 4, and similarly recited Claims 14 and 24, the connectivity graph includes information of a path between the control node and the transitively adjacent observation node (Paragraphs 0007, 0036).

8. As to Claim 5, and similarly recited Claims 15 and 25, the path between the control node and the transitively adjacent observation node is a direct path (FIG. 1, 5B, 13).

9. As to Claim 6, and similarly recited Claims 16 and 26, the path between the control node and the transitively adjacent observation node includes combination logic (Paragraphs 0009, 0039, 0048; FIG. 9-10, 14).

10. As to Claim 7, and similarly recited Claims 17 and 27, the path between the control node and the transitively adjacent observation node includes a flop (FIG. 9-10, 14).

11. As to Claim 8, and similarly recited Claims 18 and 28, the path delay information includes timing constraint information (Abstract; Paragraphs 0005-0006, 0010, 0035-0036).

12. As to Claim 9, and similarly recited Claims 19 and 29, the timing constraint information includes setup constraint timing constraint information (Paragraphs 0036, 0080; FIG. 2A, 9-10).

13. As to Claim 10, and similarly recited Claim 20 and 30, the timing constraint information includes hold constraint timing constraint information (Paragraphs 0036, 0080; FIG. 2A, 9-10).

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Suresh Memula whose telephone number is (571) 272-8046. The examiner can normally be reached on M-F 8am-4:30pm EST.

15. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Chiang can be reached on (571) 272-7483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Suresh Memula

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08/26/2006

PAUL DINH
PRIMARY EXAMINER

A handwritten signature in black ink that reads "Paul Dinh". The signature is written in a cursive style with a long, sweeping horizontal line extending to the right.